

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	("20020097285"   "20040160155"   "4597665").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:08
L2	1	L1 and react\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:08
L4	4	"2001037309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:23
L5	0	4 and react\$4	FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:23
L6	2	("20020097285"   "20040160155").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:24
L7	4	("02054115" "1220038" "9957607" "9902969").PN.	FPRS; EPO; JPO	OR	ON	2009/12/20 21:24
L8	6	L6 L7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:24
L9	1192	((semiconductor\$2 or substrate\$2 or wafer\$2 or workpieces\$2 optic\$2) same (treat\$4 or clean \$4)) and ((collect\$4 gather \$3) same (particle\$1 particulate\$1 contamina \$3) same (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	US-PGPUB; USPAT	OR	ON	2009/12/20 21:24
L10	70	((semiconductor or substrate or wafer or workpiece optic) same (treat treatment or clean cleaning)) and ((collect collection gather gathering) same (particle particulate contaminant contaminated) same (obstacle recess slot groove hole))	USOCR	OR	ON	2009/12/20 21:24
L11	119	(L9 L10) and ("134" "156").clas.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:24
L12	19	L11 and (134/1,19,21 156/345.27).cccls.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:24

L13	102	((semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) and (treat\$4 or clean\$4)) and ((collect\$4 gather\$3) and (particle\$1 particulate\$1 contamina\$3) and (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:24
L14	32	L13 and ((semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) same (treat\$4 or clean\$4)) and ((collect\$4 gather\$3) same (particle\$1 particulate\$1 contamina\$3) same (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:24
L15	57	L8 L12 L14	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:24
L16	18	15 and react\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:25
L17	0	"10409254".PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:27
L18	1	"6586757".PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:30
L19	0	18 and react\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:30
L20	12	10 and react\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/12/20 21:33
L21	428	((semiconductor or substrate or wafer or workpiece optic) same (treat treatment or clean cleaning)) and ((collect collection gather gathering) same (particle particulate contaminant contaminated) same (obstacle recess slot groove hole))	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:33
L22	204	21 and react\$4	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:33

L24	61	22 and (react\$4 same (pump\$3 exhaust\$3 vent \$3 suc\$4 blow\$3))	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:36
L25	356	21 and (tungsten " W " fluori\$2 " F " "F.sub.2" "NF.sub.3" "WF.sub.6" halogen chlori\$2 halide)	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:44
L26	176	25 and react\$4	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:45
L27	51	26 and (react\$4 same (pump\$3 exhaust\$3 vent \$3 suc\$4 blow\$3))	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:45
L28	9	27 and optic\$2	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 21:48
L30	11378	optic\$2 and ((tungsten " W " fluori\$2 " F " "F.sub.2" "NF.sub.3" "WF.sub.6" halogen chlori\$2 halide) same react\$4 same (pump\$3 exhaust\$3 vent\$3 suc\$4 blow\$3))	US-PGPUB; USPAT	OR	ON	2009/12/20 21:55
L31	1731	30 and optical and ((tungsten " W " fluori\$2 " F " "F.sub.2" "NF.sub.3" "WF.sub.6" halogen chlori \$2 halide) with react\$4 with (pump\$3 exhaust\$3 vent\$3 suc\$4 blow\$3))	US-PGPUB; USPAT	OR	ON	2009/12/20 21:56
L32	1141	31 and vacuum	US-PGPUB; USPAT	OR	ON	2009/12/20 21:58
L33	107	32 and react\$4 with contamina\$3	US-PGPUB; USPAT	OR	ON	2009/12/20 21:59
L34	44	32 and react\$4 with contamina\$3	US-PGPUB	OR	ON	2009/12/20 21:59
L35	1	"6444037".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 22:04
L37	1	35 and fluorine same residue same pumped	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 22:06
S1	1	"20060272672".pn.	US-PGPUB	OR	ON	2008/06/04 11:39
S2	0	S1 and (portion\$1 with position\$1)	US-PGPUB	OR	ON	2008/06/04 11:42
S3	0	S1 and (portion\$1 with obstacle\$1)	US-PGPUB	OR	ON	2008/06/04 11:42
S4	0	S1 and (position\$1 with obstacle\$1)	US-PGPUB	OR	ON	2008/06/04 11:42
S5	0	S1 and (position\$1 with (first second))	US-PGPUB	OR	ON	2008/06/04 11:43
S6	0	WO0137309.pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:13

S7	0	"0137309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:13
S8	0	"01/37309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:13
S9	0	"wo01/37309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:13
S10	1	"200137309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:14
S11	0	"wo 0137309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:14
S12	0	"partlo.in"	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:15
S13	225	partlo.in.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:15
S14	46	S13 and plasma	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:16
S15	3	S14 and nest\$2	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:16
S16	611	cymer.as.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:19
S17	74	S16 and plasma	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:20
S18	6	S17 and (plasma with focus with light)	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:20
S19	0	WO/2001/037309	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:24
S20	0	WO/2001/037309.pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:24
S21	0	WO2001037309.pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:24
S22	4	"2001037309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:24
S23	0	WO2000US29750.pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:26
S24	0	2000US29750.pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:26
S25	976	cymer.as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:30
S26	333	S25 and partlo.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:30
S27	100	S26 and plasma	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:30

S28	47	S27 and focus and light and pulse	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/06/04 12:31
S29	1	S1 and obstacle	US-PGPUB	OR	ON	2008/06/04 12:33
S30	0	wo0137309.pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:21
S31	0	wo0137309	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:21
S32	2	"0137309".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:22
S33	3	(partlo and fomenkov and oliver and ness and birx). in.	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:26
S34	0	S33 and collect\$5	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:31
S35	0	S33 and obtacle	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:32
S36	0	S33 and obstacle	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:32
S37	2	("20020097285"   "20040160155").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2008/08/28 21:47
S38	4	("02054115" "1220038" "9957607" "9902969").PN.	FPRS; EPO; JPO	OR	ON	2008/08/28 21:49
S39	6	S37 S38	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 21:50
S40	1071	((semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) same (treat\$4 or clean \$4)) and ((collect\$4 gather \$3) same (particle\$1 particulate\$1 contamina \$3) same (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	US-PGPUB; USPAT	OR	ON	2008/08/28 21:56

S41	70	((semiconductor or substrate or wafer or workpiece optic) same (treat treatment or clean cleaning)) and ((collect collection gather gathering) same (particle particulate contaminant contaminated) same (obstacle recess slot groove hole))	USOCR	OR	ON	2008/08/28 21:58
S42	103	(S40 S41) and ("134" "156").clas.	US-PGPUB; USPAT; USOCR	OR	ON	2008/08/28 21:58
S43	14	S42 and (134/1,19,21 156/345.27).ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2008/08/28 22:01
S44	83	((semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) and (treat\$4 or clean\$4)) and ((collect\$4 gather\$3) and (particle\$1 particulate\$1 contamina\$3) and (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 22:01
S45	25	S44 and ((semiconductor \$2 or substrate\$2 or wafer \$2 or workpiece\$2 optic \$2) same (treat\$4 or clean \$4)) and ((collect\$4 gather \$3) same (particle\$1 particulate\$1 contamina \$3) same (obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1))	FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 22:02
S46	45	S39 S43 S45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 22:03
S47	1	"20060272672".pn.	US-PGPUB	OR	ON	2008/08/28 22:19
S48	1	S47 and recess\$2	US-PGPUB	OR	ON	2008/08/28 22:19
S49	1	S47 and recess\$2 same surface\$1	US-PGPUB	OR	ON	2008/08/28 22:19
S50	25	S46 and ((obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1) same surface\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 22:22
S51	1	S47 and ((obstacle\$1 recess\$2 slot\$1 groove\$2 hole\$1) with surface\$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/08/28 22:31

S52	4432	(semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) with surface\$1 with (slot\$1 groove\$2 hole\$1) with (photochemical\$2 laser\$2)	US-PGPUB; USPAT	OR	ON	2008/08/28 22:38
S53	3	S52 and (slot\$1 groove\$2 hole\$1) with particle\$2 with collect\$4	US-PGPUB; USPAT	OR	ON	2008/08/28 22:39
S54	0	S52 and (slot\$1 groove\$2 hole\$1) with contaminant \$2 with collect\$4	US-PGPUB; USPAT	OR	ON	2008/08/28 22:42
S55	0	S52 and (slot\$1 groove\$2 hole\$1) same contaminant \$2 same collect\$4	US-PGPUB; USPAT	OR	ON	2008/08/28 22:43
S56	6	S52 and contaminant\$2 same collect\$4	US-PGPUB; USPAT	OR	ON	2008/08/28 22:44
S57	104	(semiconductor\$2 or substrate\$2 or wafer\$2 or workpiece\$2 optic\$2) with surface\$1 with (slot\$1 groove\$2 hole\$1) and (contaminant\$2 with collect\$4)	US-PGPUB; USPAT	OR	ON	2008/08/28 22:45
S58	33	S57 and (photochemical\$2 laser\$2)	US-PGPUB; USPAT	OR	ON	2008/08/28 22:46
S59	1	"4597665".pn.	US-PGPUB; USPAT	OR	ON	2008/08/29 10:42
S60	1	S59 and particle\$1	US-PGPUB; USPAT	OR	ON	2008/08/29 10:43
S61	1	"20060272672".pn.	US-PGPUB	OR	ON	2008/08/29 10:49
S62	2	("20020097285"   "20040160155").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2008/09/02 14:37
S63	2	S62 and radia\$5	US-PGPUB; USPAT; USOCR	OR	ON	2008/09/02 14:37
S64	1	"6566667".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2008/09/02 14:42
S65	56	"6566667"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2008/09/02 14:42
S66	1	"6566667"	FPRS; EPO; JPO; DERWENT	OR	ON	2008/09/02 14:42
S67	0	S66 and radia\$5	FPRS; EPO; JPO; DERWENT	OR	ON	2008/09/02 14:43
S68	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/05/20 11:49

S69	3	("20040244102"   "6172981"   "6996409").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 11:49
S70	4	"2001037309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 11:54
S71	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/05/20 14:50
S72	3	("20040244102"   "6172981"   "6996409").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 14:50
S73	4	"2001037309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 14:50
S74	0	S73 and optic\$2	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 14:51
S75	1	S71 and optic\$2	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 14:51
S76	0	S73 and (monochromator \$1 mirror\$1)	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 14:54
S77	0	S73 and radiat\$3	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 14:57
S78	1	S71 and radiat\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 14:58
S79	0	S73 and (ultraviolet uv x-ray\$1 xray\$1 (x near3 ray\$1))	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 15:01
S80	1	"6566667".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:08
S81	1	S80 and radiat\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:09
S82	1	S80 and (radiat\$3 ultraviolet uv x-ray\$1 xray\$1 (x near3 ray\$1))	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:09
S83	1	S80 and (optic\$2 monochromator\$1 mirror\$1)	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:11
S84	1	S80 and pressur\$5	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:12
S85	1	S80 and tungsten	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 15:17
S86	4	"2001037309".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 23:55
S87	1	"4597665".PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/20 23:55
S88	5	S86 S87	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 23:56



S89	0	S88 and (cvd deposit\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 23:56
S90	0	S88 and (\$3cvd vpd)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 23:58
S91	1	"6566667".pn.	FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/20 23:59
S92	0	S91 and (cvd deposit\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:00
S93	0	S91 and (\$3cvd vpd)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:00
S94	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/05/21 00:21
S95	1	S94 and chemical	US-PGPUB	OR	ON	2009/05/21 00:21
S96	0	S88 and (chemical react \$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:24
S97	2	"6566667".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:26
S98	1	S97 and (chemical react \$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:26
S99	0	S87 and (chemical react \$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:30
S100	1	S94 and coating\$1	US-PGPUB	OR	ON	2009/05/21 00:36
S101	1	S88 and (coat\$3 plat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:40
S102	1	S97 and (coat\$3 plat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/05/21 00:40
S103	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/12/19 03:18

S104	3	("20020097285"   "20040160155"   "4597665").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/19 03:19
S105	0	S103 and remov\$3 same contamina\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/19 03:42
S106	1	S103 and react\$3 same partner\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/19 03:43
S107	1	S104 and react\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/19 03:55
S108	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/12/20 17:53
S109	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/12/20 17:55
S110	1	S109 and react\$3 same partner\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 17:55
S111	3	("20020097285"   "20040160155"   "4597665").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 17:55
S112	1	S111 and react\$3	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 17:55
S113	1	"20060272672".pn.	US-PGPUB	OR	ON	2009/12/20 19:23
S114	3	("20020097285"   "20040160155"   "4597665").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 19:37
S115	2	S114 and particle\$1	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/20 19:37

**12/ 20/ 2009 10:45:03 PM**

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